

REMARKS

Status of the Claims

- Claims 1-17 are pending in the Application after entry of this amendment.
- Claims 1-17 are rejected by Examiner.
- Claims 1-16 are amended by Applicant.

Amendments to the Claims

Applicant amends independent Claims 1 and 10 to more clearly recite aspects of the invention. Applicant wishes to clarify the three main steps of the method for controlling a first network station of a network of a first type by a second network station of a network of a second type:

- Identification of which network station of network of first type will be the destination for the control command issued by the second network station for controlling the first network station.
- Conversion of the control command into a corresponding control command in a format which is adapted to the identified destination network station; and
- Transmission of the corresponding control command to the identified destination network station.

Applicant's invention includes forwarding the UPnP functionalities which cannot be mapped directly onto the HAVi functionalities to an HAVi device connected to the respective HAVi device. (See as-filed specification page 4 lines 34-37). One feature of the invention consists in identifying to which network station the control command has to be forwarded.

A first step of the identification is based on a test to determine whether the first network station (the station to be controlled) provides a functionality corresponding to the control command. If the first network station does provide such functionality, then the control command is transmitted to the first network station to be controlled. This is well known. But, if the first network station (to be controlled) does not provide such functionality, a second step of the

identification consists in determining an alternative (third) network station of the network of first type for being the destination of the control command. Then, this second step of the identification is based on a search of any network station which is connected to the first network station and which simultaneously provides a functionality corresponding to the control command. Support is found in the specification as follows: "If the command for program switchover, that is to say either prog+ or prog-, arrives from the UPnP TV set 11, then the gateway software 60 checks whether a connection to a tuner FCM is registered at the stream manager 48 for the HAVi display 20." (See as-filed specification page 13 lines 2-6). "The functionalities of various types of FCMs are specified in the HAVi standard itself." (See as-filed specification page 10 lines 1-2).

In Claim 1 and 10, Applicant deletes the previous wording "direct" or "indirect" conversion because, once the destination station is identified, the control command "for changing the program can be forwarded directly to the tuner." (See as-filed specification page 4 lines 34-37).

Wordings of Claims 2 and 11 are also amended to keep a consistency with Claims 1 and 10. The amendment concerns a second step of identification happening when none of the further network stations which are connected to the first network station provides the functionality corresponding to the control command.

A further step happens then which is based on a test to determine whether among the further network stations there is any which provides a functionality corresponding to the control command. If there is any, this network station will be identified as destination for the control command. The support for this amendment is found in the as-filed specification p.12 lines 25-37: "The gateway software 60 checks whether a set-up connection is registered for the HAVi display. For this purpose, it directs an inquiry to the stream manager 48 via the messaging system 43. If a connection is set up, e.g. to the set-top box 19, a check is made to determine whether the set-top box has set up a further connection to an amplifier FCM. If this is the case, the conversion of a

command for volume setting is performed such that the command in the form Amplifier::SetVolume is directed to the amplifier FCM in the gateway 14. The latter transmits the corresponding HAVi message to the amplifier 22 via the IEEE 1394 bus 23."

Claim Rejections Pursuant to 35 U.S.C. §103

Claims 1-9, 11, and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over US Patent Publication (US 2005/0021852) to Accarie et al. (Accarie), in view of US Patent Publication US 2005/0125357 to Saadat et al. (Saadat), in view of US Patent No. (US 7,412,538) to Eytchison et al. (Eytchison). Applicant respectfully traverses the rejection via amendment.

The claimed invention presents a method and a network connection unit configuration where a functionality of a control command sent by a second network station for controlling a first network station is not provided by the first controlled network station. Such a configuration is met for example when the controlling station is connected over an UPnP network and when the controlled device is connected over a HAVi network. Then, the problem raised by the invention is related to the impossibility of a complete conversion of control commands sent from controlling device (UPnP) to controlled device (HAVi) (See as-filed Specification. p. 4 lines 3-4).

Accarie relates to an interconnection of two networks, especially a HAVI network and a UPnP network. It recites controlled stations (devices B and A) and a controlling station (device D) connected over a UPNP network. This configuration corresponds to a situation where all the functionalities of the controlled device can be covered by a specific interface. This configuration is also envisaged in Applicant's specification, in a description of the prior art (See Applicant's specification from page 3 line 1 to 21), but the currently claimed invention is different from the described prior art.

Accarie does not describe any first network station which "does not provide the functionality corresponding to the control command" sent for controlling said first network station and correlatively neither discloses any action to "activate" in case there is the first network station. There is no suggestion to look for any teaching in any related documents for combining it with any teaching from either Eytchison or Saadat for finding such first network station and for arriving at a method as claimed in the present arrangement of pending Claim 1.

Saadat is related to a secure integrated media center able to handle content stored in a PC. Saadat does not address the question of interfacing devices connected over two different networks. Saadat Paragraph [150] addresses control commands which were first directed to a PC and then redirected to a set-top box or TV tuner. As explained above, the claimed network connecting unit firstly identifies a destination network station, converts the control command to a format adapted to the identified destination network station and then directs the converted control command to the destination. So, the control command is directly sent (See as-filed Specification page 4 lines 34-37) to a destination station and it is not redirected, successively sent to various stations before reaching the right definitive destination station. In Paragraph 150, Saadat does not disclose any conversion of the format of the control command.

Eytchison discloses a request event manager. In Eytchison, Figure 7, a flow diagram is presented. Applicant respectfully submits that if one skilled in the art combined Accarie with Eytchison, he would fail to find the following in the combination:

- any connection unit having conversion able to direct "the corresponding control command to a third network station in the network of the first type, wherein the network connection unit determines said third network by checking whether a connection setup is registered between said first network station and a further network station in the network of the first type which provides the functionality corresponding to the control command," as recited in pending Claim 1. Applicant notes that Figure 7 of Eytchison, after step 770 which indicates that the "Resource manager informs user that service is not available", and there is no test for checking if there is alternative station which can provide a functionality corresponding to the control command.

Accordingly, Applicant respectfully submits that the combination of Accarie, Saadat, and Eytchison fails to teach or suggest the independent Claim 1 aspect of "directs the corresponding control command to a third network station in the network of the first type, wherein the network connection unit determines the third network by checking whether a connection setup is registered between said first network station and a further network station in the network of the first type which provides the functionality corresponding to the control command" as recited in amended independent Claim 1. Independent Claim 10 is also amended. Since the combination of Accarie, Saadat, and Eytchison does not teach or suggest all elements of pending independent Claims 1 and 10, then these claims patentably define over the cited combination. Likewise, Claims 2-9, which depend on patentably distinct Claim 1, and dependent Claims 11 and 17, which depend on patentably distinct Claim 10, are likewise rendered non-obvious per MPEP §2143.03.

Claim Rejections Pursuant to 35 U.S.C. §103

Claims 10 and 12-16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over US Patent Publication (US 2005/0021852) to Accarie et al. (Accarie), in view of US Patent No. (US 7,412,538) to Eytchison et al. (Eytchison). Applicant respectfully traverses the rejection via amendment.

The combination of Accarie and Eytchison are discussed above. The Claim 10 aspect that the "first conversion means is adapted to determine said third network station from a check on whether a data connection setup is registered between said first network station and a further network station in the network of the first type which has a functionality corresponding to the control command, the format of the corresponding control command is adapted to said third network station" is not present in either Accarie, Eytchison or the combination of both. Since the combination of Accarie and Eytchison does not contain all of the elements of amended independent Claim 10, then the combination of references cannot render obvious amended Claim 10. Also, dependent Claims 12-16, which rely on patentably distinct Claims 10 are thus also rendered non-obvious per MPEP §2143.03. Applicant respectfully requests reconsideration of the 35 U.S.C. §103(a) rejection of pending Claims 1-5, and 10-13 based on the amendments and remarks above.

Conclusion

Applicant respectfully submits that the amended pending claims patentably define over the cited art and respectfully requests reconsideration and withdrawal of the rejections of all pending claims based on the amendments and arguments presented herein.

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If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 07-0832 therefore.

Respectfully submitted,
Ingo Hutter

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